ABSTRACT

The present invention is an inhibitory peptide capable of inhibiting β pleated sheet formation in amyloid β -peptide. The inhibitory peptide is a β -sheet breaker peptide analog designed by chemical modification of a β -sheet breaker peptide capable of inhibiting β pleated sheet formation in amyloid β -peptide.

The present invention also includes an inhibitory peptide capable of inhibiting conformational changes in prion PrP protein associated with amyloidosis. The inhibitory peptide being a βsheet breaker peptide analog designed by chemical modification of a βsheet breaker peptide capable inhibiting the conformational changes in prior PrP protein associated with amyloidosis.

In addition, the present invention includes a peptide mimetic with the following structure:

In another embodiment, the peptide mimetic has the following structure:

HOOC
$$CH_3$$
 CH_3 CH

In yet another embodiment, the peptide mimetic has the following structure:

$$\begin{array}{c|c} CH_3 \\ HN \\ CH_3 \\ CH_3 \\ CH_3 \\ \end{array}$$

PMiPrP5